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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/763,980 | 04/20/2001 | Werner Jacob | INA-PT049 | 3600 |
| 3624 | 7590 | 11/17/2003 | EXAMINER | |
| VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103 | | | ABDELNOUR, DENNIS J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3681 | |

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/763,980

Applicant(s)

JACOB ET AL.

Examiner

Dennis J. Abdelnour

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3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The following Office Action is in response to Amendment D filed 29 October 2003,
Paper No. 20. Claim 1 is pending.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "the inwardly facing races" and "the outwardly facing races" in lines 11-12. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claim 1, as understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold (USPN 2,135,477) in view of Rohn (USPN 1,325,113) and Ebert (DE 35 22 600 A1).

Griswold discloses a differential for a motor vehicle in Figure 2. The differential has a bevel-pinion shaft 24, supported in a drive housing 11 by two spaced and axially pretensioned angular contact ball bearings 26 and 27 (see the second column, lines 14-31 concerning bearing preload). The bevel pinion gear 25 and the ring gear 21 drive the differential unit, which is

mounted in the drive housing 11, the differential gears, the output gears, and the output axle shafts.

The bearings 26 and 27 are unilaterally loadable angular contact bearings that face each other in an O-arrangement. Ball bearing 26 is positioned adjacent the bevel pinion gear 25 and is larger than ball bearing 27. The bearing races of ball bearings 26 and 27 have different diameters and different pressure angles.

Griswold does not disclose double row tandem angular contact bearings or a deformable sleeve supporting the inner ring of the second ball bearing.

Rohn discloses a ball bearing arrangement in Figure 1 secured over a shaft. The ball bearing is arranged as a unilaterally loadable, double-row tandem angular contact bearing comprising a one-piece inner ring 5 and a one-piece outer ring 14. The outer ring 14 includes shoulders 19 and 20, one shoulder for each bearing race.

It would have been obvious to one having ordinary skill in the art at the time of the invention to substitute the bearings shown in Griswold with the double-row tandem bearing arrangement as taught by Rohn in order to distribute a thrust load between both bearings, and also to provide a compensation for wear.

Ebert discloses in Figure 1 a differential assembly with roller bearings. A deformable sleeve 9 is disposed between the two bearings on the bevel pinion shaft. The deformable sleeve 9 acts to pretension the bearings.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use a deformable sleeve disposed between the two bearings of Griswold in view of

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Rohn as taught by Ebert in order to reduce the number of assembly parts to pretension the bearing.

Response to Arguments

5. Applicant's arguments filed 29 October 2003 have been fully considered but they are not persuasive.

In response to applicant's argument based upon the age of the references, contentions that the reference patents are old are not impressive absent a showing that the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In particular, the Rohn reference is not relied upon to modify the arrangement of the bearings shown in the Griswold reference. Rohn is relied upon only to modify the *type* of bearings used in the Griswold reference, as recited in the 103 rejection. The applicant asserts that even in combining the Rohn and Griswold references' one would not achieve the claimed invention as amended; however, this is not the case. If the Rohn reference is relied upon only for the type of bearing as recited, then by modifying the Griswold reference, one would indeed achieve the claimed invention, for the bearings in the Griswold reference are arranged in an O-

arrangement, and if the Rohn bearings were substituted into the Griswold differential, they would maintain the O-arrangement.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis J. Abdelnour whose telephone number is (703) 305-5309. The examiner can normally be reached on Monday-Friday, 8:00-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (703) 308-0830. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9326.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

dja

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13 November 2003



RODNEY H. BONCK
PRIMARY EXAMINER
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